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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,049	09/08/2000	Ernie Lin	12203-002001	2910
26161	7590	11/05/2003	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			TRAN, TUAN A	
			ART UNIT	PAPER NUMBER
			2682	

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/658,049

Applicant(s)

LIN ET AL.

Examiner

Tuan A Tran

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4, 9-14 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-4, 9-14 and 19-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3-4, 9-14 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow (6,522,640) in view of In re Karlson, 136 USPQ 184 (CCPA 1963).

Regarding claim 1, Liebenow discloses a base unit (See fig. 4), wherein the base unit is in communication with a telephone line and receives an original signal from the telephone line, the base unit generating an RF modulated signal based on the original signal (See fig. 4 and col. 7 lines 12-24), for transmitting a data signal having substantially no linear distortion (See fig. 2 and col. 3 lines 62-65, col. 5 lines 1-20); and a communication card (See fig. 3) which receive the data signal from the base unit over a wireless medium, and which performs echo canceling on the data signal (See fig. 2 and col. 3 lines 62-65, col. 4 lines 33-67). However, Liebenow does not mention that the base unit generates the data signal via analog frequency modulation without performing analog-to-digital conversion on the original signal from the telephone line. In re Karlson, 136 USPQ 184 (CCPA 1963) states that omission of an element and its function in a combination is an obvious expedient if the remaining elements perform the

Art Unit: 2682

same function as before, and further since analog FM modulation is common in the art; therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to omit digital sections 40, 42 and 48 of the base unit as disclosed by Liebenow as well as to use FM modulation for the advantage of simplifying the circuitry of the base unit to save cost in condition of bypassing a protection against drop-out of analog signals that may occur, and further expanding the capability of the system to various modulation skims.

Regarding claims 3-4, Liebenow discloses as cited in claim 1. However, Liebenow does not mention that the base unit comprises an AGC for maintaining a peak voltage excursion of combined original and echo signals with linear amplification region of the transmitter. Signal amplifier circuit, having AGC for maintaining a signal amplified in the AGC amplifier circuit within a linear range of the AGC amplifier circuit, is well known in the art, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the amplifier circuit of the transceiver of the base unit as disclosed by Liebenow, with the signal amplifier circuit, as mention above for the advantage of enhancing the feed forward control process to avoid saturation at the amplifier.

Regarding claim 9, Liebenow discloses as cited in claim 1, but he does not mention that the communication card includes a switch, wherein the switch is triggered by a circuitry when the line present indicator detects a wired medium, for selecting a type of medium over which to transmit and receive the data signal. Since Liebenow discloses the communication card capable of operating in two wireless and wire-line

Art Unit: 2682

modes (See fig. 2 and col. 4 lines 33-50, col. 5 lines 21-25), and establishing a switching circuit to select operation modes based on detection indicating whether or not wired medium interfaced is a common practice in the art; therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to establish a switching circuit to select operation modes based on detection indicating whether or not wired medium interfaced for the advantage of operating the system in the correct mode in accordance to the user's intention.

Claims 10-14 are rejected for the same reasons as set forth in claim 9.

Regarding claim 19, Liebenow discloses a base unit (See fig. 4) and a communication card (See fig. 3) which transmits/receives the data signal to/from the base unit respectively (See fig. 2 and col. 3 lines 62-65, col. 4 lines 33-67). However, Liebenow does not mention that base unit including a hook switch circuit that seizes the telephone line by drawing direct current from the central office battery to provide an indication that the telephone line is ready to transmit data signal. The hook switch circuit, that seizes the telephone line by drawing direct current from the central office battery to provide an indication that the telephone line is ready to transmit data signal, is well known in the art; therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the hook switch circuit in the base unit as disclosed by Liebenow for the advantage of enhancing hand-shaking process between the central office and the base unit to obtain channel for data transmission.

Art Unit: 2682

Regarding claims 20-22, Liebenow discloses as cited in claim 19, but he does not mention that the communication card includes a switch for selecting a type of medium over which to exchange data signal with the base unit. Since Liebenow discloses the communication card capable of operating in two wireless and wire-line modes (See fig. 2 and col. 4 lines 33-50, col. 5 lines 21-25), and establishing a switching circuit to select operation modes based on detection indicating whether or not wired medium interfaced is a common practice in the art; therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to establish a switching circuit to select operation modes based on detection indicating whether or not wired medium interfaced for the advantage of operating the system in the correct mode in accordance to the user's intention.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ide et al. (5,955,921) discloses signal amplifier circuit.

- Ohmagari et al. (5,553,318) discloses transmitter having envelope feedback loop and automatic level control loop.
- Bergmans et al. (4,835,765) discloses arrangement for full-duplex data transmission over two-wire circuit.
- Brooks (4,171,469) discloses abbreviated dialing system.
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### ***Response to Arguments***

Art Unit: 2682

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan Tran** whose telephone number is **(703) 605-4255**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Vivian Chin**, can be reached at **(703) 308-6739**.

Art Unit: 2682

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



Tuan Tran

AU 2682



VIVIAN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

11/3/03